

# FENDT

The 500 Vario Series

512 | 107 pto hp • 513 | 114 pto hp • 514 | 124 pto hp • 516 | 137 pto hp

The perfect tractor comes  
in the perfect size.



There are a few among the few.



Not everyone is up this early.  
Or out so late. Fewer are out feeding at sunrise.  
And hauling at sunset.

Among the crowd, there are the exceptional. [These are the farmers we serve.](#)

They expect reliability, so we design, engineer and test every detail. They expect capability, so we invent and innovate the next generation of tractor technology. They want more, and that's what we strive to create.

It's perfection in the perfect size.

Our Fendt® 500 Vario delivers the innovation and capability of our award-winning heritage in a compact and agile design to give today's farmers a crucial tool to achieve their goals.



## THE 500 VARIO TRACTORS FROM FENDT®

Since 1930, Fendt has been recognized as the world leader in tractor technology. In the past eight-plus decades, Fendt has been the first with a CVT transmission, first with a multi-point cab suspension system and the first with full control of all drive functions and hydraulics via a single joystick. Even today, Fendt offers features that are unavailable at any price on other farm tractors.

- **Improved engine characteristics** designed for maximum fuel efficiency and the lowest total operating costs. The engines are Tier 4 Final compliant.
- **Comfort front power lift option** with position control and load relief control keeps front-mounted implements hugging the ground over uneven terrain. The load relief can be set at the Varioterminal, while an integrated position sensor detects uneven surfaces. Front PTO installation is also a factory option for increased efficiency and productivity in the field.
- **VarioDoc documentation system** features wireless transfer of all task data quickly and securely.
- **Varioterminal 10.4-B** offers greater contrast, night mode and a smartphone look and feel, while a bracket allows a high degree of motion for adjustment.
- **VisioPlus Cab** one-piece, curved front windshield curves up into the roof and offers nearly triple the upward angle of sight. The spacious, revolutionary cab also provides an unobstructed view of the front wheels, as well as 320 degrees of horizontal visibility.

The 500 Vario models offer a lot more than lower emissions, more technology and an award-winning design. Four models provide a power range ideal for front loader or row crop applications in mid-sized farms.



Because your office isn't 9 to 5.



### FENDT GOLD STAR CUSTOMER CARE

For more than eight decades, farmers have known that a Fendt tractor purchase includes more than a rugged, efficient tractor. The Gold Star Customer Care plan keeps your overall costs firmly under control, which translates into more value and more uptime with:

**Full Warranty Protection** — As a Fendt tractor owner, you are assured of full warranty protection, with no deductible, for 36 months or 3,000 hours, whichever comes first.

**Full Maintenance Coverage** — For the first 36 months or 3,000 hours, Fendt will cover all scheduled maintenance, including the cost of oil, filters, belts and maintenance items.

**Genuine AGCO parts** — Your Fendt dealer only installs original parts. Original AGCO parts are tailored to your tractor, so that your Fendt remains 100% Fendt.

**AGCO Parts Advantage** — Fendt has the best parts warranty in the industry: one year on parts and six months on labor when parts are dealer-installed.

**Uptime Loaner Program** — The customer will be provided a comparable Fendt tractor if his own Fendt tractor cannot be repaired within 48 working hours. *Working hours is defined as 12 working hours per day.*

*Whether you cut, bale, feed, plant or all of the above, Fendt gives you a world-class level of support.*

- Comprehensive service and maintenance
- Fully Fendt-trained and -equipped service technicians
- High-quality parts
- Expert diagnostics
- No additional cost (\$15,000 value)
- Zero deductible

# Designed like no other. Performs like no other.

The Fendt 500 was created to deliver efficiency, reliability and an unmatched amount of capabilities. Each of the tractor's systems are optimized to deliver more ability, power and assurance to the farmer while minimizing fuel, effort and time.

## ENGINE AND DRIVETRAIN

The four-cylinder engine has a 4.04 liter cubic capacity and features common rail injection resulting in 165 HP maximum output at 1,800 RPM. The Selective Catalytic Reduction (SCR) exhaust after-treatment takes place after combustion, allowing the engine to be ideally tuned, which means outstanding performance.

The Tractor Management System (TMS) keeps the tractor operating at optimum performance. Operators only need to specify the desired speed, activate the TMS and the system takes over the engine and transmission functions.

Fendt is the first tractor manufacturer to put a continuously variable transmission (CVT) in a tractor and remains the manufacturer with the most CVTs in the field. The Fendt Vario transmission is a hydrostatic-mechanical power split drive. At lower speed, power is shared between a mechanical and hydrostatic system. With increasing speed, the share of the mechanical power transmitted through a planetary gear set increases as the amount flowing through the hydrostat system decreases. This power sharing results in incredible efficiency and stepless acceleration without the use of clutch packs or other high-wear items.

## SUSPENSION

The design of the suspension on the 500 Vario enables maximum ride comfort in the field and on the road. The combination of front-axle suspension, cab suspension and seat suspension provide a driving comfort comparable to passenger cars.

The VarioActive steering system adapts itself to the steering movement and ground speed, leading to a stronger steering ratio. This enhances operating comfort, particularly for front loader work in tight spaces or when making headland turns. Shock-load stabilizing prevents the tractor and implement from bouncing by actively counteracting movements using the hydraulics. It reduces pitching movements so you benefit from improved steering safety and ride comfort.

The Fendt Reaction steering system ensures ideal straight-ahead driving. After negotiating a curve, a hydrostat quickly brings the steering wheel back into the starting position and provides the driver with steering feedback from the road.

## CONTROL

When turning at the headland, operators usually have to change between different controls, sometimes up to 12 times. The 500 Vario uses the right armrest as the central operating control, meaning you don't have to change controls. Operators can rest their arm on it and control the tractor and implement using the multifunction joystick and Varioterminal. The linkage control module next to the crossgate lever controls the quick lift switch, depth control and engagement of the front and rear PTO.

Thanks to headland management, standard on the 500 Vario, operating errors during turning maneuvers are a thing of the past. Operators can activate automated operating sequences at the headlands with just the touch of a button.

You can also optimize the sequence of steps by editing them individually when the tractor is at a standstill.

## TECHNOLOGY

VarioGuide is optimally integrated in the Variotronic and can be operated with the Varioterminal. VarioGuide can reduce overlapping by an average of six percent and save fuel and inputs, such as seeds and fertilizer, by six percent. Operators can easily monitor the tractor and implement with VarioGuide, even at night and in poor visibility conditions.

With VarioDoc, relevant data can be recorded with minimum effort, documented in the field record and analyzed in the shortest amount of time. The Varioterminal lets you enter all important information in the field, reducing follow-up work in the office to a minimum. And it works the other way around, too — jobs can be created using the PC and transferred to the terminal.





Power and precision at your fingertips.



### ROOM WITH A VIEW

The Fendt VisioPlus cab is designed for maximum visibility and comfort. With nearly 17 square feet of glass in a special, one-piece front windshield that curves into the cab roof, it offers nearly triple the upward angle of sight. No more leaning forward to watch the loader. No more stiff neck.

With nearly 65 square feet of glass in total, as well as 320 degrees of horizontal visibility, it provides a clear view of the wheel arches, the crops and front- and rear-attached implements. Yet, it has all the comforts of the larger Fendt models.

Pneumatic cab suspension reduces fatigue from a long day in the field and provides superior ride comfort. Fendt also offer a variety of operator seat options on all models:

- Comfort seat (air sprung with lumbar support)
- Super Comfort seat (air sprung with seat heater, pneumatic lumbar support, low-frequency suspension)
- Super Comfort Evolution Dynamic seat (all Super Comfort features, plus air conditioning)

### HYDRAULICS

The hydraulic system features modern load-sensing technology, with optional delivery capacities of 29 or 42 gallons per minute. The separate transmission and hydraulic oil supplies prevent oil mixing and contamination in the transmission. Furthermore, bio-hydraulics oils can be used.

The electrohydraulic rear linkage has a maximum lift capacity of 15,000 pounds. The newest load-compensating rear linkage means an increase in comfort because the set lowering speed is automatically maintained, for heavy as well as lightweight implements.

# Fendt CargoProfi

## VARIO AND CARGOPROFI – AN INTEGRAL COMBINATION

The 500 Vario is the perfect tractor for loader work. The compact design of the four-cylinder engine means agile handling, and the overview is ideal thanks to the narrow hood design. The VisioPlus cab ensures unique and unprecedented visibility to the raised front loader. While high hydraulic capacities at a low engine speed ensure fast lifting movements and precise loader response.

## SMART FUNCTIONS OF THE CARGOPROFI

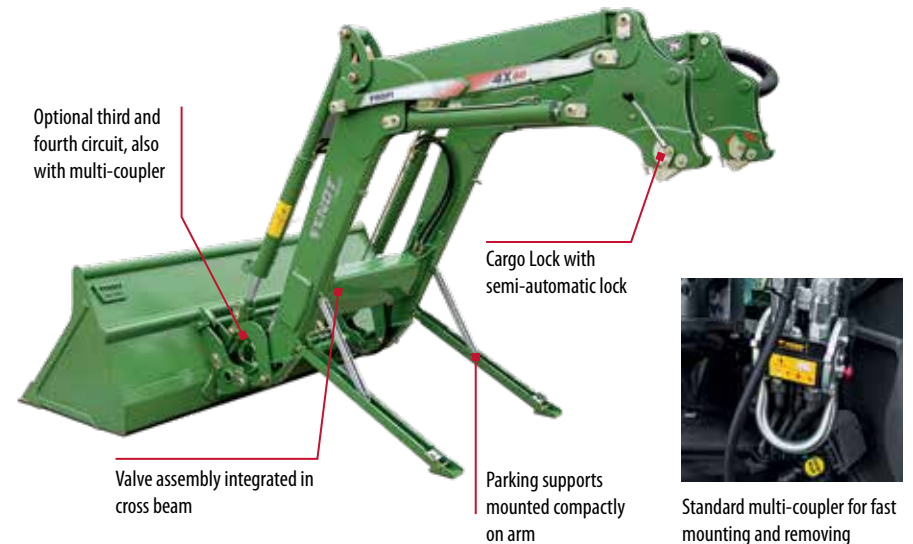
The Fendt CargoProfi advances the development of the tractor and loader combination. Industry-leading time and labor-savings features designed into the CargoProfi include an electronic weighing function, return to dig, return to dump, memory functions (e.g., total weight of bales on the truck), speed-dependent damping, end position damping and a shake function to remove sticky material from the bucket. The settings are easy to adjust and view in the Varioterminal. The CargoProfi represents the absolute pinnacle in front loader operation.

Other unique features include:

- Automatic attachment lock.
- All hydraulic lines and hoses are routed inside the frame.
- The large-diameter bronze bearing sleeves have their own lubrication for less wear and a longer service life.
- Hydraulic valves and dampening are protected in the cross member.
- Optimum view of the raised loader and attachment.
- The valve assembly is integrated into the frame.
- The standard-equipment multi-coupler allows faster, easier loader connection and removal.

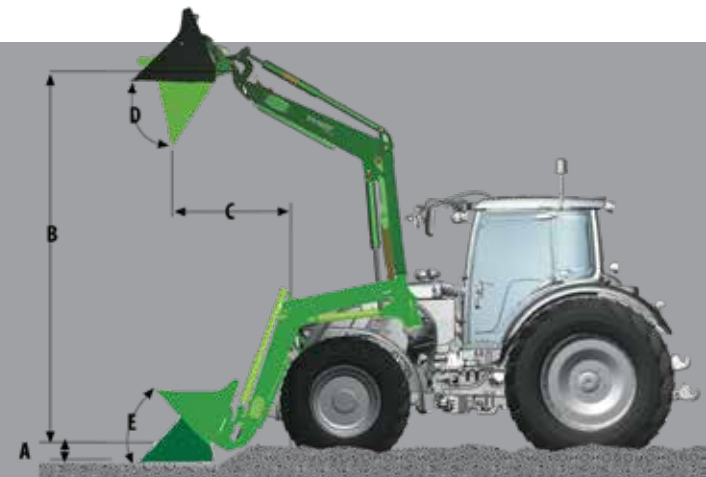
## The features of the Fendt CargoProfi

- Weighing function: Loads are weighed with the push of a button, both individual and total weight possible
- Working range, such as lifting height and tilt angle, can be limited
- Memo function: saves positions for arm and attachment
- Speed-dependent damping (automatic enabling and disabling)
- End position damping
- Shake function



Model	4X/75	4X/80
<b>A</b> Digging depth in. <sup>1</sup>	6	6
<b>B</b> Lifting height in. <sup>1</sup>	163	163
<b>C</b> Dumping distance in. <sup>1</sup> [ <b>B</b> = 11.4 ft. (3.5 m)]	63.3	63.3
<b>C</b> Dumping distance in. <sup>1</sup> [ <b>B</b> = max.]	45	45
<b>D</b> Angle of emptying	55°	55°
<b>E</b> Angle of backwards tilt	48°	48°
Lift capacity over full height lbs.	4,361	5,080
Maximum lift capacity lbs.	5,058	5,889

<sup>1</sup> = varies depending on tires equipped.







**AGCO ANSWERS**  
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**FENDT**



*Challenger*



**GLEANER**

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## 500 VARIO SPECIFICATIONS

### ENGINE

	512	513	514	516
Rated power ECE R 24 (kW / HP)	81 / 110	88 / 120	99 / 135	110 / 150
Maximum power ECE R 24 (kW / HP)	92 / 125	99 / 135	107 / 145	121 / 165
Rated PTO power (kW / HP)	79 / 107	84 / 114	91 / 124	101 / 137
No. of cylinders / cooling	4 / water	4 / water	4 / water	4 / water
Cylinder bore / stroke (mm / in.)	101 / 126 / 4 / 5	101 / 126 / 4 / 5	101 / 126 / 4 / 5	101 / 126 / 4 / 5
Cubic capacity (cm <sup>3</sup> / in. <sup>3</sup> )	4,038 / 246	4,038 / 246	4,038 / 246	4,038 / 246
Rated engine speed (RPM)	2,100	2,100	2,100	2,100
Engine speed at max. power (RPM)	1,900	1,900	1,900	1,900
Max. torque 1500 RPM (Nm / ft. lbs.)	550 / 405	590 / 435	649 / 478	687 / 506
Torque rise (%)	42	40	38	33
Fuel tank (l / gal.)	298 / 78.7	298 / 78.7	298 / 78.7	298 / 78.7
DEF tank (l / gal.)	31 / 8.1	31 / 8.1	31 / 8.1	31 / 8.1
Oil change interval operating hours	500	500	500	500

### TRANSMISSION / PTO

Continuously variable Vario transmission model  
Speed range (forward / reverse)

Rear PTO  
Front PTO (optional)

ML90  
Forward: 20 m / h to 50 kph (60 ft. / h to 31 mph)  
Reverse: 20 m / h to 33 kph (60 ft. / h to 20.5 mph)  
540 / 1000  
1000

### LINKAGE

Type of control  
Variable displacement pump capacity (l/min)  
(pressure 200 + 10bar)  
Max. lift capacity on the drawbar (kg. / lbs.)<sup>1</sup>  
Front linkage max. lift capacity (kg. / lbs.)<sup>1</sup>  
Implement weight/front linkage up to approx. (kg. / lb.)  
Max. vertical hitch load (kg. / lb.) with standard tires and 50 km/h

Electro Hydraulic  
ProFi / ProfiPlus 110, Optional 158  
6,803 / 15,000  
6,803 / 15,000  
6,803 / 15,000  
6,803 / 15,000  
2,460 / 5,423  
2,460 / 5,423  
2,460 / 5,423  
2,460 / 5,423  
2,000 / 4,409  
2,000 / 4,409  
2,000 / 4,409  
2,000 / 4,409

### WEIGHTS AND DIMENSIONS\*

Overall length (mm / in.)	4,453 / 175	4,453 / 175	4,453 / 175	4,453 / 175
Width (mm / in.)	2,501 / 98.5	2,501 / 98.5	2,501 / 98.5	2,501 / 98.5
Overall height cab (mm / in.) without VarioGuide	2,965 / 117	2,965 / 117	2,965 / 117	2,965 / 117
Max. ground clearance (mm / in.)	545 / 21.5	545 / 21.5	545 / 21.5	545 / 21.5
Wheelbase (mm / in.)	2,560 / 100.8	2,560 / 100.8	2,560 / 100.8	2,560 / 100.8
Min. turning circle (m / ft.) <sup>2</sup>	5.29	5.29	5.52	5.52
Unladen weight (kg. / lb.)	6,400 / 14,109	6,400 / 14,109	6,400 / 14,109	6,400 / 14,109
Perm. overall weight (kg. / lb.)	10,500 / 23,148	10,500 / 23,148	10,500 / 23,148	10,500 / 23,148

### ELECTRICAL EQUIPMENT

Starter (kW) Battery  
Alternator

4  
Profi / ProfiPlus 14.4 V / 200 A

\*Standard wheels in US: 16.9R28 / 20.8R38

<sup>1</sup> 1 daN = 10 N = approx. 1 kg, <sup>2</sup> Recommended for row crop tires, not available from Fendt

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www.fendt.com